



Information and Communication Technology



Grade 6
Second Semester (Term 2) 2025/2026

ICT Department | Computer & Information Technology

Grade 6 Class Booklet – Second Semester

Educational Directorate: Talkha Educational Administration

School:

Student Name:

Class:

Table of Contents

Unit 3: The Digital Citizen in the World of the Internet

Lesson1: Artificial Intelligence and the Ethics of Its Use

Lesson2: Online Shopping and Investment: How to Choose the Best?

Lesson 3: Digital Communication

Lesson 4: Video Conferencing

Lesson 5: Programming Languages and Solving Digital Problems

Lesson 6: Image Editing

Unit4: My Digital Project

Lesson 1: The Role of Information Technology in Improving Our Lives

Lesson2: Working with Operating Systems and Computer Applications

Lesson 3: Preparing and Sharing Reports

Lesson4: Creating Presentations

Lesson 5: Databases Using Excel

Lesson6: Smart Art

Project + General Revision



Unit 3: The Digital Citizen in the World of the Internet

Unit 3: The Digital Citizen in the World of the Internet

Lesson1: Artificial Intelligence and the Ethics of Its Use



1. Artificial Intelligence (AI): Machines That Think

Imagine a machine that can think, solve problems, and make decisions just like you! That is Artificial Intelligence (AI).

- It is a technology that enables machines to use human-like traits, such as logic, to solve problems.
- How do these machines learn? AI relies on something called Algorithms.
- Think of them as detailed "recipes" or "steps" that the machine follows to learn and find solutions.

2. AI Tools in Our Daily Life

AI is all around us, and you have probably used some of its tools already!

Tool	Usage	Example
Face Recognition	Used to verify your identity and unlock your device.	Your Smartphone
Voice Assistants	Digital robots that answer your questions or perform tasks via voice commands.	Siri or Alexa
Email Filters	Tools that prevent dangerous or unwanted messages (Spam/Malicious mail) from reaching you.	Your Email Inbox
Language Processing Tools	Help you draft writings or answers and send simple emails/messages.	Search or Writing Assistants
Chatbots	Windows on websites that respond to you automatically using "chat robots."	Customer Service on websites

3. Ethics: Using AI Responsibly

Since AI is very powerful, we must use and build it according to important ethical rules:

- **Inclusivity**: AI tools should include all users, not just a specific group. Everyone should benefit.
- **Unbiased**: AI decisions must be based on facts and data, not on personal opinions or viewpoints (prejudice).
- **Privacy**: The privacy and security of users' data must be respected. Your personal information should never be leaked.
- **Beneficence**: AI tools should be used to help society and make it better, not for harmful personal gain or cheating.
- **Responsibility**: If an AI tool makes a mistake, its designer must admit the error and fix it.

Practical Application: Dear Student: Using Microsoft Word or any other writing program, write a short topic about "Artificial Intelligence in Our Daily Life."

- Mention at least two AI tools you use at home or school.
- Explain why we must follow ethical rules (like privacy and honesty) when using these tools.

Exercises on Lesson

Q1: Choose the correct answer:

1. What does Artificial Intelligence try to simulate in machines?
 - a. Rocket speed.
 - b. Human traits in problem-solving and logic.
 - c. Cloud movement.
 - d. Electrical signals in circuits.
2. Which AI tool is used to protect your email from dangerous messages?
 - a. Voice assistants.
 - b. Smart home devices.
 - c. Email filters.
 - d. Smart navigation systems.
3. What are the steps or "recipes" that AI relies on to learn and solve problems called?
 - a. Hypotheses.
 - b. Algorithms.
 - c. Records.
 - d. Statistical models.
4. Which ethical principle prevents AI from making decisions based on personal opinions?
 - a. Beneficence.
 - b. Responsibility.
 - c. Unbiased (Fairness).
 - d. Transparency.
5. What does the principle of "Inclusivity" require in AI ethics?
 - a. That tools are used by a specific group only.
 - b. That tools are ready to explain how they work.
 - c. That tools include all users, not just a specific group.
 - d. That tools are only protected from hacking.
6. AI enables machines to use logic and _____ in solving problems:
 - a. Handwriting.
 - b. Decision making.
 - c. Fast travel.
 - d. Automatic printing.
7. Which of the following is a common AI tool?
 - a. Manual sewing machine.
 - b. Navigation apps to guide you to a destination.
 - c. Fax machine.
 - d. Traditional calculator.
8. What AI relies on to learn and solve problems is called:
 - a. Records.
 - b. Algorithms.
 - c. Clouds.
 - d. Metadata.
9. Which ethical principle relates to ensuring that society benefits from AI?
 - a. Transparency.
 - b. Beneficence (Benefit).
 - c. Responsibility.
 - d. Justice.
10. If AI collects your personal information, it must apply the principle of:
 - a. Inclusivity.
 - b. Transparency.
 - c. Privacy (Confidentiality).
 - d. Accuracy.

Q2: Put (✓) or (✗):

- 1- Artificial Intelligence is the technology that enables machines to use human traits to solve problems ()
- 2- The principle of Transparency requires the tool's designer to be ready to explain how it works. ()
- 3- Language processing tools are those that help in drafting writing and emails. ()
- 4- It is ethical to intentionally ignore data from a specific group of people when training AI tools. ()
- 5- AI tools on social media sites can suggest people for you to connect with. ()

Sixth_Grade - Weekly Assessment and Assignments - Week (1)

Weekly assessment

First Test

Tick (✓) in front of the correct statement and (x) in front of the wrong one:

- 1- Artificial intelligence is the technology that enables machines to use human attributes in problem-solving ()
- 2- Responsibility is the ethical principle that relates to ensuring that society benefits from artificial intelligence ()

Second test

Tick (✓) in front of the correct statement and (x) in front of the wrong one:

- 1- Artificial intelligence tools on social media platforms can suggest people to connect with ()
- 2- The principle of transparency requires that the tool's designer be prepared to explain how it works ()

Third test

Tick (✓) in front of the correct statement and (x) in front of the wrong one

- 1- Language processing tools help in drafting writing and emails()
- 2- It is ethical to deliberately omit data from a specific group of people when training artificial intelligence tools. ()

Class evaluation

Find a popular AI tool? Write one sentence about its use

Homework

1- Which artificial intelligence tool is used to protect your email from malicious messages?.

- A- Voice assistants
- B- Smart home devices
- C- Smart navigation systems
- D- Email filters.

2- If artificial intelligence is collecting your personal information, the principle..... must be applied Library catalogue

- A- Transparency
- B- Inclusivity
- C- Confidentiality (Privacy)
- D- Accuracy

Lesson2: Online Shopping and Investment: How to Choose the Best?



1. E-commerce: A Vast World of Choices

Have you ever bought a toy or ordered a meal online? This is called **E-commerce**.

- **E-commerce** is the process of buying and selling goods and services over the internet.
- With the increase in online stores and variety of options, it has become essential to use technology and **Artificial Intelligence (AI)** to help us make the right purchasing decisions.

Note: The person who buys goods or services is called a "**Consumer**."

How technology helps the consumer:

- **A. Smart Search Engines:** When searching for a specific product, like a "new school bag," search engines use AI to analyze your previous data and preferences to provide:
 - Personalized suggestions that suit your taste.
 - Results ranked by relevance or fastest delivery.
- **B. Comparison Websites:** These sites help you when buying products like electronic devices by:
 - Comparing multiple products in one place.
 - Evaluating quality, price, and different features to choose the best one.
- **C. User Reviews and Ratings:** Before completing a purchase, it is important to see what others think:
 - Consumer ratings from users, friends, or family online.
 - These reviews help measure the quality of the product and service before you buy.

2. E-Investment: Supporting Companies

Have you heard the terms **Stocks** and **Bonds**? Don't worry, the concept is simple!

Stocks and Bonds

- **Stocks:** When you buy stocks in a company, you become a partner with a small share of that company. They are also called **Securities** that grant you an ownership stake.
- **Bonds:** When you buy bonds, you are essentially lending the company a sum of money.

Why do people invest?

1. **To Help:** To support companies that we believe are doing something good for the world, such as environmentally friendly companies.
2. **To Make a Profit:** The profits or interests earned by the company return to the investors (stock and bondholders).

Ethical and Sustainable Investment

It is important to choose companies to invest in that follow ethical rules, such as:

- Caring for the environment.
- Having transparent and reliable management.
- Providing high-quality products.

Practical Application:

Dear Student: Search the internet for the **Egyptian Exchange (EGX)** website. Browse the site and write a report covering: (You may ask your teacher or a family member for help)

- **Market Summary.** - **Indices Summary (Indicators).** - **Statistics.**

Exercises on Lesson

Q1: Choose the correct answer:

1. What is the process of buying and selling goods and services over the internet called?
a. E-commerce. b. Digital Investment. c. Traditional Marketing. d. Cloud Comparison.
2. What do smart search engines use to provide personalized suggestions and rank products based on user relevance?
a. Font size. b. Artificial Intelligence. c. Page design. d. Calculator.
3. When you buy a stock in a company, what do you become to that company?
a. A lender. b. A consumer. c. An employee. d. A partner.
4. Why is it important to review the official websites of companies before investing in them?
a. To check the color of the company's logo. b. To follow new products.
c. To know the number of employees. d. To ensure the ethical rules the company follows.
5. What is the function of electronic comparison websites?
a. To hide product prices. b. To compare product specifications and prices in one place.
c. To delete unwanted products. d. To gather ratings from friends and family only.
6. E-commerce is the buying and selling of goods and services via:
a. The Internet. b. Regular mail. c. Traditional markets. d. Libraries.
7. What are the securities that grant you an ownership stake in a company called?
a. Bonds. b. Sukuk c. Shares. d. Coupons
8. Which technological tool helps you compare prices and specifications when buying a mobile phone?
a. Traditional search engines. b. Shopping sites.
c. Electronic comparison websites. d. Old applications.
9. What should an investor consider in companies they choose to support the environment?
a. Increasing profits only. b. That the company is very large.
c. That the company is eco-friendly and follows ethical rules. d. The number of employees.
10. Why has the importance of using technology in making online purchasing decisions increased?
a. To reduce the number of available options.
b. Because the amount of options and products has become very large.
c. Because stores have become closed. d. To facilitate travel.
11. Which of the following is one of the most important AI tools that help the User on the internet?
a. Using a calculator. b. Smart search engines.
c. Writing by hand. d. Listening to music.
12. The person who buys goods and services is called:
a. The designer. b. The programmer. c. The consumer. d. The developer.
13. Investing in a company's bonds means that you:
a. Get free goods from it. b. Lend the company a sum of money.
c. Own all the company's stocks. d. Consume all the company's products.
14. Investing in a company's stocks should be for the purpose of:
a. Wasting money. b. Causing fraud to others.
c. Supporting the company and achieving gains. d. Trading personal data.
15. What do smart search engines use to rank the results that suit you?
a. Product colors. b. Store names.
c. Your preferences and previous browsing behavior. d. Ad images.

Sixth Grade - Weekly Assessment and Assignments - Week (2)
Weekly assessment

Test

1-

2-

Class evaluation

Homework

1-

2-

Lesson 3: Digital Communication



1. Who Provides Us with Support Services?

Whenever you need help, whether it's a technical issue or a question about your studies, there are people and organizations ready to support you.

- **Educational Service Providers (ESP):** These are organizations that provide various educational services to students and teachers. They may provide books or training materials online.
 - **Example:** The **Bibliotheca Alexandrina (Library of Alexandria)** is a major provider in this field.

A. Customer Support Services

These are services provided by companies to help you solve problems or answer your inquiries regarding their products or services.

B. Communication via Email

Email is a formal and professional way to communicate. It is the best option in the following cases:

- If your problem requires a long, detailed explanation.
- If you need a formal document or a record of the conversation.

C. Tips for Writing an Email

- **Clear Subject Line:** Write a concise title so the recipient knows the purpose of the message.
- **Respectful Language:** Start with a formal greeting (e.g., "Dear Sir/Madam," or "Greetings,").
- **State the Purpose:** Clearly explain why you are reaching out and what information you need.

2. Chatbots

Sometimes, when you visit a website, a small window pops up and asks: "Hello, how can I help you today?"

These are **Chatbots**.

- **What are they?** They are programs powered by **Artificial Intelligence (AI)** designed to respond to questions instantly online.
- **Speed:** They provide immediate answers. If a human agent is needed, service providers usually respond within 24 hours.
- **Accuracy:** Since these are robots and not real people, it is essential to state your request **clearly and accurately**. If your questions are vague, you will not receive accurate answers.

3. Other Communication Methods

In addition to email and chat, you can contact service providers through:

- **Telephone Support:** Speaking directly with a support representative.
- **Visiting Support Offices:** Going to the organization's physical headquarters to submit your request.

Practical Application:

Dear Student: Conduct a search on the internet to explore the most important applications used for **Secure Online Communication** (you may ask your teacher for guidance).

- List at least two apps that protect your privacy.
- Explain why "End-to-End Encryption" is important in these apps.

Q1: Choose the correct answer:

a. Educational Service Providers (ESP).
b. Public Transportation Services.
c. Retail Companies.
d. Sports Training Centers.

a. To increase the size of the message. b. To change the font color.
c. So the recipient knows the purpose of the message. d. To add images.

a. Voice Assistants. b. Navigation Apps. c. Email. d. Chatbots.

a. To take a longer time.
c. To reduce internet usage.

b. To speed up the device.
d. To get accurate answers.

- Starting with a formal and respectful greeting.
- Writing the attachments.
- Ending the message with your signature.
- Adding images.

a. Informal. b. Random. c. Formal. d. Personal only.

a. Sending a fax. b. A traditional email message.
c. Chatbots. d. Writing handwritten letters.

a. Programs designed with Artificial Intelligence.
c. A hard drive.

b. A calculator.
d. A browser.

a. Message signature. b. Opening greeting. c. Message body. d. Subject line (Subject).

a. It is a more formal medium.
c. Suitable for explaining long problems.

b. Instant response.
d. Difficult to use.

Q2: Put (✓) or (✗):

5- The most important element to enable the recipient to quickly identify the goal of an email is the Subject line. ()

Sixth Grade - Weekly Assessment and Assignments - Week (3)

Test

1-

2-

Class evaluation

Homework

1-

2-

Lesson 4: Video Conferencing



1. What is Video Conferencing?

Imagine talking to your friend or teacher—seeing them and hearing them—while each of you is in a completely different place! This is **Video Conferencing**.

- **Video Conferencing:** These are tools that allow people in different locations to communicate with each other using audio and video in **real-time**. It feels like a face-to-face interaction, but it happens over the internet.
- These services are powered by **Cloud Computing**.

2. Famous Video Conferencing Tools

Many organizations use video conferencing for different purposes, such as education or business. The most famous programs include:

- Zoom
- Microsoft Teams
- Google Meet

3. Steps to Use Video Conferencing

Whether you or your teacher wants to start or join a meeting, here are the simple steps to follow:

First: Creating a New Meeting

1. Click on the "**New Meeting**" option.
2. Choose the option that suits you (Instant Meeting or Create a Meeting for later).
3. Once the meeting is created, you will find a **Meeting Link**. Copy it and share it with the people you want to join.

Second: Joining a Meeting

To join a meeting you were invited to, you can do one of two things:

1. Click directly on the **link** sent to you.
2. Copy the **Meeting Code** or link and paste it into the designated field, then click the **Join** button.

4. Important Rules Before, During, and After the Meeting

To make your meeting successful and effective, follow these guidelines:

A. Before the Conference:

- **Check the Technology:** Ensure your internet connection is stable and that your camera and microphone are working correctly. This avoids technical issues that could disrupt the meeting.

B. During the Conference:

- **Manage Audio and Video:** Once you join, you can click the **Microphone icon** to mute or unmute yourself, and the **Camera icon** to turn your video on or off.
- **Quiet and Respect:** Ensure your behavior is polite and appropriate for a meeting. Pay attention to notes on the screen and do not use the camera or microphone unless necessary.

C. After the Conference:

- **Follow-up and Recording:** You can send a follow-up email. If the meeting settings allow it, you may also access a recording of the meeting.

Practical Application:

Dear Student: Design a poster illustrating the importance of using video conferencing tools like **Google Meet** and **Microsoft Teams**.

- Include icons for the microphone and camera.
- Mention one benefit of using these tools for school (e.g., "Learning from home").

Q1: Choose the correct answer:

a. Microsoft Word. b. Google Meet. c. Microsoft Excel. d. Microsoft Paint.

5- Inappropriate behavior during a video conference is considered improper and must be avoided. ()

Sixth_Grade - Weekly Assessment and Assignments - Week (4)

Weekly assessment

Test

1-

2-

Class evaluation

Homework

1-

2-

Lesson 5: Programming Languages and Solving Digital Problems



1. Programming Languages: How Do We Talk to Computers?

- Did you know that computers have their own language? These are called **Programming Languages**.
- **Programming Languages:** They are a set of rules and symbols used to give clear instructions to computer programs.

2. Famous Web Programming Languages

- **HTML (HyperText Markup Language):** This language is used to build the structure of web pages. Think of it as the "**bones**" that build the body of the page.
- **JavaScript:** This language is used to create interactive and dynamic web pages, such as buttons that move or pop-up windows. It adds "**life**" to the page.

3. Common Digital Problems and How to Solve Them

In the world of technology, it is normal to face some challenges. Here are the most important problems and their steps to solve:

Problem	Suggested Solutions (Steps)
Corrupt File	1. Ensure the file is actually what you expect it to be. 2. Try opening it with a different program. 3. If you are sure it is corrupt, delete it to avoid further issues.
Device Not Charging	1. Ensure the charging cable is working properly. 2. Check if the power outlet or surge protector is active. 3. You may need to replace the battery if it is the source of the problem.
Forgotten Password	1. Click on the link that says "Forgot Password." 2. Follow the steps to create a new, strong password.
File Saving Methods	1. It is always best to keep a backup copy. 2. Save files to an external drive, or better yet, a cloud storage service like Google Drive or OneDrive.
File Cannot Be Deleted	Check if the file name contains " Special Characters " or symbols that are preventing it from being deleted.

Practical Application:

Dear Student: With the help of your teacher, discover some potential computer malfunctions and suggest ways to solve them.

• Activity:

Create a small table listing a problem you faced in the computer lab and the steps you took to fix it.

Exercises on Lesson

Q1: Choose the correct answer:

1. What is the programming language used to create the basic structure of web pages?
a. JavaScript b. Microsoft Excel c. HTML d. Microsoft Paint
2. If your device is not charging, what is the first thing you should check?
a. The device's volume level b. Today's date
c. The internal battery d. The charging cable or power outlet
3. Which language adds interactivity and movement to web pages?
a. HTML b. JavaScript c. Microsoft Paint d. Microsoft Excel
4. What is the best option to protect files from being permanently lost?
a. Saving the file in the Recycle Bin b. Saving it on the Desktop
c. Saving it on a USB drive d. Saving it on Cloud Storage
5. What is the final action to take if all attempts to fix a corrupt file fail?
a. Trying to open it with different programs b. Deleting the corrupt file
c. Sending the file to a friend d. Restarting the device
6. Programming languages are symbols and rules that give _____ to the computer:
a. Instructions (or commands) b. Still images c. Songs d. Animated images
7. What do we call a problem where a file becomes unusable?
a. Normal file b. Corrupt file c. Saved file d. Temporary file
8. HTML creates the structure of the page; what does JavaScript add to it?
a. Structure only b. Special characters c. Interactivity and movement d. Text only
9. What type of storage allows you to save your files on the internet?
a. Cloud Storage b. Recycle Bin c. Internal Hard Drive d. External Hard Drive
10. In your opinion, why should passwords be strong and unique?
a. To protect the account from hacking b. To make them easy to remember
c. To keep them short d. To make sharing with others easier

Q2: Put (✓) or (✗):

- 1- If the message "File is corrupted" appears, it means the keyboard is not working.()
- 2- JavaScript is used to create static web pages only.()
- 3- The best way to protect files from permanent loss is to save them on cloud storage.()
- 4- When you forget the password, you should guess it until it works.()
- 5- When trying to delete a file that won't delete, you should check if it contains special characters.()

Sixth_Grade - Weekly Assessment and Assignments - Week (5)

Weekly assessment

Test

1-

2-

Class evaluation

Homework

1-

2-

Lesson 6: Image Editing



1. Image Enhancement: Why do we edit them?

Have you ever taken a photo where the light was too strong or the colors looked unnatural? You can fix this through **Image Editing**.

- **Image Editing** is the process of changing and adjusting images to make them look more attractive and beautiful.
- **The Goal:** It could be to correct a mistake in the photo or to make it look professional.

2. Image Editing Software: GIMP

We use powerful programs to edit photos. **GIMP** (which stands for *GNU Image Manipulation Program*) is an excellent example.

- **Features:** It is an effective, **open-source** program. This means you can use it for **free** and even modify its tools.
- **Usage:** You can download it directly from the internet.

What can we do with Image Editing?

Image editing offers many possibilities:

- **A. Correcting Flaws:** You can restore original colors or remove excessive camera flash/glare.
- **B. Changing Colors:** You can change the background color of a photo or a video to make it look smoother.
- **C. Merging Images:** You can combine two different images into one. This is very useful when creating presentations.
- **D. Special Effects (Filters):** You can use filters to make a photo look old or add **Motion Blur**.
 - **Motion Blur** gives a visual effect to moving objects or videos, making them appear streaked or blurry in the direction of movement.

3. Artificial Intelligence (AI) Helps You

In modern image editing programs like GIMP, **Artificial Intelligence** is used to assist you:

- **Color Organization:** AI learns how to adjust the photo's colors so that only the colors you truly need appear, making the image balanced.

Practical Application:

Dear Student: Use the internet to search for free and open-source image editing programs. Then, compare the features of each program.

Tip: Look for programs like *Krita* or *Inkscape* and see how they differ from *GIMP*.

Exercises on Lesson

Q1: Choose the correct answer:

1. What is the main goal of image editing?

- a. Changing images to make them look more attractive.
- b. Reducing image clarity.
- c. Making images look old all the time.
- d. Increasing the file size.

2. What is the process called when two different images are made to appear as one in a presentation?

- a. Color correction.
- b. Changing the background.
- c. Merging images.
- d. Cropping the image.

3. What is the role of Artificial Intelligence (AI) in image editing software?

- a. Deleting old files.
- b. Printing the image.
- c. Organizing and customizing colors.
- d. Increasing the camera resolution only.

4. Why is GIMP considered "open-source" software?

- a. Because it is not free.
- b. Because it allows users to modify its tools.
- c. Because it is used only online.
- d. Because it cannot be installed on the device.

5. Mention a flaw that might appear in a photo which you can correct through editing (other than color):

- a. Blemishes or excessive camera light (glare).
- b. Slow internet.
- c. Low video volume.
- d. Difficulty in writing.

6. Improving images means correcting _____ and restoring colors to their original state:

- a. Background.
- b. Lighting.
- c. Blemishes (Flaws).
- d. Size.

7. If you want to make your photo look old or have motion blur, what can you use?

- a. Text editing.
- b. Color organization.
- c. Special effects (Filters).
- d. Deleting the background.

8. What can you do with images to use them in your presentation?

- a. Merge images.
- b. Increase internet speed.
- c. Change the text color.
- d. Write comments.

9. What does using GIMP require from the user?

- a. Taking enough time to learn and practice.
- b. Purchasing the software.
- c. Being a professional painter.
- d. Having fast internet.

10. What is the other name given to special effects in image editing software?

- a. Filters.
- b. Colors.
- c. Attachments.
- d. Shapes.

Q2: Put (✓) or (✗):

- 1- To make an image look as if it is moving or has motion blur, we use special effects (Filters). ()
- 2- Two images can be combined to become one through image editing. ()
- 3- The role of artificial intelligence in image editing software is to organize and customize colors. ()
- 4- The famous program used as an alternative to GIMP is Microsoft Word. ()
- 5- If an image has a flaw or blemish due to camera light, image editing helps correct it and restore it to its original state. ()

Sixth_Grade - Weekly Assessment and Assignments - Week (6)

Weekly assessment

Test

1-

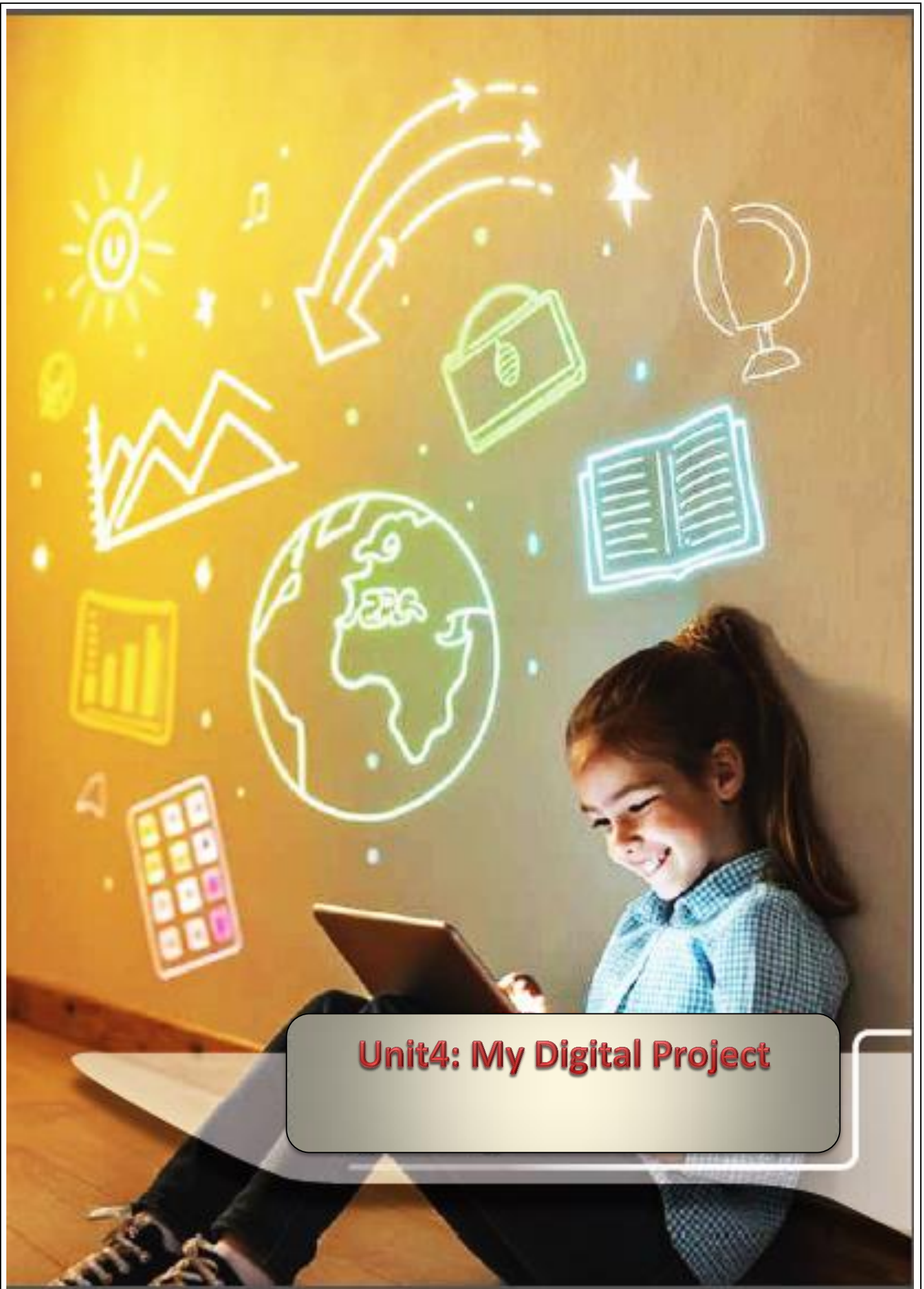
2-

Class evaluation

Homework

1-

2-



Unit4: My Digital Project

Lesson 1: The Role of Information Technology in Improving Our Lives



1. ICT: A Tool for Real-World Solutions

Dear Student, did you know that the smartphone you carry is not just for communication, but a powerful tool for solving real-world problems? **ICT** stands for **Information and Communication Technology**, representing all the technological tools that help us process and manage information.

First: ICT for a Better Environment

Technology helps us build a cleaner and better environment through:

- **Clean Vehicles:** ICT applications and digital payment systems have boosted the use of **Electric Vehicles (EVs)**. These vehicles do not emit harmful gases, reducing pollution and protecting our health.
- **Energy Saving:** Technology helps us manage energy consumption in homes and factories smartly, which reduces resource waste.
- **Increasing Job Opportunities:** Technology has opened new doors for many people to work in clean transportation and smart services.

Second: ICT and Faster Services (Online Booking)

Online Booking is the use of websites or apps to request a service or book an appointment without physically going to the location. This saves effort and helps you organize your time.

How do these tools work?

- **GPS (Global Positioning System):** The foundation of any smart transport system. It accurately determines your location and the vehicle's location, suggesting the best and fastest route.
- **Smart Apps:** Such as taxi-hailing or train-booking apps. They offer **Electronic Payment** options and show you the cost before you start.
- **Notifications and Reminders:** These send alerts about the arrival time of transport or reminders of your booking to avoid waiting.

Third: Innovation Challenge (Solving Transport Problems)

Comparison	Traditional Methods	Technological Solutions (ICT)
The Problem	Waiting at a bus station without knowing the arrival time.	Using a GPS tracking app to see its location on the map.
Payment	Paying with cash, which might lead to losing money.	Using Electronic Payment via phone, which is more secure.
The Result	Wasted time, crowding, and pollution.	Saving time, reducing pollution, and increasing safety.

Practical Application:

Dear Student: Create an illustrative chart using office software (like PowerPoint or Word) to show how much ICT contributes to our lives. Add icons and images to make the chart attractive and easy to understand.

Exercises on Lesson

Q1: Choose the correct answer:

1. What is the core component used in online booking applications to determine locations?

- a. Cooling system
- b. Cash payment system
- c. Global Positioning System (GPS)
- d. Solar power system

2. ICT contributes to a better environment by:

- a. Increasing the number of gasoline-powered cars
- b. Neglecting public transportation
- c. Reducing the number of computers
- d. Supporting the use of vehicles that do not emit harmful exhausts

3. One of the benefits of online booking in daily services is:

- a. Saving time and effort
- b. Increasing waiting time
- c. Using paper excessively
- d. Complicating procedures

4. If a flight booking app sends you a message to remind you of your departure time, this service is called:

- a. Automatic Notifications
- b. Central heating
- c. Photography
- d. Smart lighting

5. Which of the following terms stands for "Information and Communication Technology"?

- a. GBT
- b. ABC
- c. ICT
- d. CPU

6. Which of the following is considered a traditional problem solved by online booking systems?

- a. Sitting at home
- b. Using a phone
- c. Standing in a long queue
- d. Browsing the internet

7. When you use an app to track the location of the school bus, you are exploring ICT tools used in:

- a. Home building
- b. E-learning
- c. Modern agriculture
- d. Smart Transportation Systems

8. If a transportation company relies on electronic payment instead of cash, this increases: a.

- Safety/Security
- b. Pollution
- c. Fuel consumption
- d. Malfunctions

9. The tool that helps a driver find the best route to avoid traffic is part of a _____ system:

- a. Central cooling
- b. Guidance and Navigation
- c. Gaming and entertainment
- d. Smart lighting

10. The goal of proposing a new technological tool design is to:

- a. Ignore problems
- b. Make manual work more difficult
- c. Innovate smart solutions for problems
- d. Increase complexity

Q2: Put (✓) or (✗):

- 1- You can book an appointment to visit a doctor online without needing to go to the clinic physically. ()
- 2- Technology contributes to increasing carbon emissions in the environment. ()
- 3- A school bus tracking app helps the student organize their time and arrive at the scheduled time. ()
- 4- Proposing a new idea for an app design is considered a type of innovation. ()
- 5- There is no difference in time or effort between traditional booking and online booking. ()

Sixth_Grade - Weekly Assessment and Assignments - Week (7)
Weekly assessment

Test

1-

2-

Class evaluation

Homework

1-

2-

Lesson2: Working with Operating Systems and Computer Applications



First: What is an Operating System (OS)?

The Operating System is the essential software that makes a computer run. It is responsible for running various programs such as games, word processors, and design tools. Without an operating system, the computer cannot function or interact with the user.

Examples of Operating Systems:

- **Windows:** From Microsoft.
- **macOS:** From Apple.
- **Linux:** An open-source system.
- **Android and iOS:** For smartphones and tablets.

An Operating System helps you:

- Manage files and folders.
- Run different applications and programs.
- Control hardware components like the screen, mouse, and keyboard.

Second: Changing System Settings

You can adjust your device settings through the **Control Panel** in Windows or through **Settings** on smartphones.

Common settings you can change:

- Changing the **Desktop Background**.
- Adjusting the **Volume Level**.
- Changing the **Language, Date, and Time**.
- Connecting to **Wi-Fi** networks.

Note: Be careful when changing system settings to ensure you do not negatively affect the device's performance.

Third: Installing Software and Applications

Programs are tools that help us perform specific tasks, such as writing, drawing, or learning.

- **On Computers:** To install a program, you can download it from the internet or use a CD, then follow the installation prompts.
- **On Smartphones:** Applications are downloaded from official stores:
 - **Google Play Store:** For Android devices.
 - **App Store:** For iPhone (iOS) devices.

Once installed, the application icon appears on your screen and can be opened with a simple click.

Practical Application:

Dear Student: (Change or Add) some secure applications on your mobile device (you may seek help from your teacher or one of your parents).

- Check the app ratings before downloading.
- Ensure the app is from a "Verified Developer."

Exercises on Lesson

Q1: Choose the correct answer:

1. What is the software that makes the computer work?

- a. Drawing program (Paint) b. Operating System c. Word processor d. Electronic game

2. Which of the following is an example of a mobile operating system?

- a. Windows only b. Linux c. Android and iOS d. macOS

3. To change the desktop background, we use:

- a. Keyboard b. Control Panel c. Recycle Bin d. Browser

4. The application store on Android devices is called:

- a. Word Store b. Play Store c. Windows Store d. Apple Store

5. Changing the language and date in system settings helps in:

- a. Improving sound b. Organizing device usage c. Deleting files d. Installing programs

6. Which company developed the Windows operating system?

- a. Google b. Apple c. Microsoft d. Linux

7. Which of the following is NOT an operating system?

- a. Android b. Facebook c. Windows d. macOS

8. What is the function of the operating system?

- a. Running games only b. Running the device and managing programs
c. Displaying images only d. Increasing internet speed

9. Where can you download applications on a phone?

- a. Recycle Bin b. App Store c. File Manager d. Settings

10. To adjust the sound on the device, we use:

- a. Printer b. Microphone c. Settings d. Recycle Bin

Q2: Put (✓) or (✗):

- 1- The operating system for Apple mobile devices is **iOS**. ()
- 2- To change the device language, we go to the **App Store**. ()
- 3- The computer's operating system is responsible for running programs and organizing the device. ()
- 4- The app store for iPhone devices is called the **Play Store**. ()
- 5- When installing a new program on a computer, you must follow the installation steps. ()

Sixth_Grade - Weekly Assessment and Assignments - Week (8)
Weekly assessment

Test

1-

2-

Class evaluation

Homework

1-

2-

Lesson 3: Preparing and Sharing Reports



First: Writing Reports using Microsoft Word

Microsoft Word is one of the most famous word-processing programs in the world. It helps you write and format reports, add images, tables, and headings, making them organized and easy to read.

Program Interface Components:

When you open Word, you will see:

- **Menu Bar:** Contains tabs like **File**, **Insert**, and **Layout**.
- **Toolbar (The Ribbon):** Includes buttons for formatting text, such as changing color or font size.
- **Writing Area:** The space where you type your report content.

Steps to Write a Simple Report:

1. Open **Microsoft Word**.
2. Choose "**Blank Document**".
3. Type the report title, for example: "*Artificial Intelligence in Our Lives*".
4. Add text and images using the **Insert** menu.
5. Format the text using the tools in the top toolbar.
6. Save the file with a suitable name via the **File** menu, then click **Save**.

Second: Messaging Services

Messaging services like **WhatsApp**, **Messenger**, and **Telegram** help us exchange messages, photos, and files quickly and easily over the internet.

Tips for Using Messaging Safely:

- Do not share your personal information with strangers.
- Do not open strange or unknown links.
- Use messaging for useful things, such as studying or communicating with friends and teachers.
- Respect others in your messages and avoid spreading rumors.

Practical Application:

Dear Student: With the help of your teacher or a family member, use a messaging application like **WhatsApp** or **Telegram**. Then, write a report using Microsoft Word about their key features.

- Try to insert a screenshot of the app icon into your Word document.
- Use bullet points to list the features.

Exercises on Lesson

Q1: Choose the correct answer:

1. Which program is used for writing reports?

- a. Microsoft Excel b. Microsoft PowerPoint c. Microsoft Word d. Microsoft Paint

2. The command used to insert a picture into a document is:

- a. File b. Insert c. Layout d. View

3. The "Writing Area" in Word is the place where we:

- a. Change the language b. Type the text c. Save files d. Display images only

4. An example of a messaging application is:

- a. Microsoft Word b. WhatsApp c. Microsoft Excel d. Microsoft Paint

5. To protect yourself when using messaging services, you should:

- a. Share your number with everyone b. Open all links
c. Not share personal information d. Ignore privacy settings

6. A table can be added in Word from the _____ menu:

- a. Insert b. File c. View d. Tools

7. Which tool helps in formatting text?

- a. Changing the color b. Deleting the program
c. Adjusting the clock d. Turning on the sound

8. To save a file, we choose the command:

- a. Open b. Print c. Save d. Exit

9. A messaging service that allows sending photos is:

- a. Microsoft Word b. WhatsApp c. Microsoft Paint d. Microsoft Excel

10. One of the safe methods of using messaging services is:

- a. Sharing your password b. Disrespecting others
c. Using the app for useful things d. Opening unknown links

Q2: Put (✓) or (✗):

- 1- Microsoft Word is used for word processing and writing reports. ()
2- To save a document in Word, we use the "**Insert**" menu. ()
3- Images can be inserted into a document through the "**Insert**" menu. ()
4- An example of a messaging service is the **Excel** application. ()
5- One of the safety rules in messaging is to not open suspicious links. ()

Sixth_Grade - Weekly Assessment and Assignments - Week (9)

Weekly assessment

Test

1-

2-

Class evaluation

Homework

1-

2-

Lesson4: Creating Presentations



1. What are Presentations?

Have you ever thought about how you can present your ideas or research results to your classmates and teacher in a fun and exciting way? This is what we call a **Presentation**.

Presentation: It is a collection of **slides** used to present information and ideas. It helps you deliver your message clearly and beautifully using text, images, shapes, and animations. Imagine telling a story using moving pictures and music! This is the secret to a successful presentation.

2. Microsoft PowerPoint: Your Creative Friend

The most famous and easiest program for creating these presentations is **Microsoft PowerPoint**. This program is part of the Microsoft Office suite that you often use at school and at home.

PowerPoint features very easy tools, such as drawing and writing tools, and many animation options that make your slides transition and appear in an attractive and cheerful way. Using PowerPoint makes you like a creative director producing a short film for your ideas!

3. Basic PowerPoint Tools: Let's Discover the Program!

When you open PowerPoint, you will find an organized interface that makes your work easier. Here are the most important places and tools you will need:

Tool Name (Place)	Location in the Program	Function
File Menu (File)	Top Left/Right (Depending on language)	To Save the presentation, Open a file, or Print it.
Home Tab (Home)	At the top part	Contains important formatting commands like changing font size, type, and color .
Tabs	At the top of the screen	Each tab (like Design, Insert, Animations) contains a group of specialized tools.
Design Tab	One of the main tabs	Used to choose the " Slide Size " and " Themes " to change the background and colors to suit your topic.
Insert Tab	One of the main tabs	Used to add new elements such as Images, Shapes, Charts (to explain numbers), and Videos .
Review Tab	One of the main tabs	Responsible for Spell Check and ensuring there are no spelling mistakes.

Practical Application:

Dear Student: Design a presentation on one of the following topics:

- The opening of the Grand Egyptian Museum.
- Ways to preserve the environment.
- Awareness against internet risks.

Pro Tip: Use the **Design** tab first to choose a beautiful theme, then use the **Insert** tab to add pictures that match your story!

Exercises on Lesson

Q1: Choose the correct answer:

1. What is the most famous program used to create presentations?

- a. Microsoft Word b. Microsoft Excel c. Microsoft PowerPoint d. Microsoft Paint

2. A presentation is used to:

- a. Write long letters. b. Perform mathematical calculations.
c. Present ideas and information in an interesting way. d. Browse the internet.

3. To add a new image to a slide, we use the _____ tab:

- a. Animations b. Design c. Insert d. View

4. If you want to change the shape and color of the entire slide background, you will use the _____ tab:

- a. File b. Insert c. Review d. Design

5. The main function of the "Review" tab is:

- a. Spell checking and ensuring word accuracy. b. Adding charts.
c. Formatting fonts and colors. d. Creating transition animations.

6. Which tools can you use to create an attractive and eye-catching visual presentation?

- a. Cooking tools. b. Easy tools like animations, shapes, and images.
c. Sewing tools. d. Sculpting tools.

7. In PowerPoint, the bar that contains commands such as changing font size is:

- a. File Bar b. Main Ribbon (Home Tab) c. Status Bar d. Animations Bar

8. Before you start designing slides, you can set the slide dimensions through the option:

- a. Slide Size b. Background Color c. Font d. Insert Table

9. Transition animation options between slides help you to:

- a. Print the document. b. Save the file.
c. Make your presentation more exciting and dynamic. d. Send an email.

10. What element must you maintain for your presentation to be successful?

- a. Using only a lot of text. b. Neglecting images.
c. Delivering your idea effectively and impressively to the audience.
d. Using only one font throughout the presentation.

Q2: Put (✓) or (✗):

1- Charts are used in PowerPoint to explain complex data and numbers in a simple way. ()

2- A **Theme** in PowerPoint means inserting an image inside the slide. ()

3- The "**Animations**" tab is used to add visual effects to elements within the slide. ()

4- Slides in PowerPoint are the spaces where we write text and add images. ()

5- One of the most important skills for using PowerPoint effectively is the ability to deliver the idea and impress the audience. ()

Sixth_Grade - Weekly Assessment and Assignments - Week (10)
Weekly assessment

Test

1-

2-

Class evaluation

Homework

1-

2-

Lesson 5: Databases Using Excel



1. What is a Database?

Imagine you have a very large library full of books, and you want to find a specific book quickly. If the books are scattered everywhere, it will be very difficult. But if they are organized and recorded in a table with the **Book Title, Author's Name, and Shelf Number**, it becomes very easy! This organized table is what we call a **Database**.

- **Definition:** A **Database** is a way to store and organize huge amounts of data and information (such as student names, grades, and schedules) inside a computer to make it easy to analyze, search, and modify.
- **Importance:** It helps us collect information about people, places, or things and makes it easier to manage. For example, a school uses a database to organize information about its students (like student names and ID numbers).

2. Microsoft Excel: A Tool for Building Databases

We can use **Microsoft Excel**—the program where you learned addition, subtraction, sorting, and filtering—to create simple databases. Excel works using tables made of **columns** and **rows**.

Remember:

- **Field (Column):** Represents a specific type of information (e.g., "Student Name").
- **Record (Row):** Represents a complete set of information about one item (e.g., all data for one specific student).

3. Steps to Create a Simple Database in Excel

Step 1: Define Columns (Fields)

- In the first row (**A1, B1, C1...**), write the headers for the columns you need. These are called **Field Names**.
- **Example:** In cell **A1**, type "ID Number"; in **B1**, type "Class Name"; in **C1**, type "Student Name".

Step 2: Enter Data (Records)

- Start from the second row and fill in the information under each column.
- **Example:** Under "ID Number" (**A2**), type "1111-11-001". Under "Class Name" (**B2**), type "6/B". Under "Student Name" (**C2**), type "Ahmed Ali".

Step 3: Adding New Columns (Insert Column)

- If you want to add a new column like "Date of Birth," right-click on the column letter where you want the new column to appear.
- Choose **"Insert"**. A new column will be added and formatted automatically.

4. Calculations and Formulas in Excel

Excel is an excellent program for performing calculations! When dealing with a database containing numbers like student grades, you can use **Formulas**.

- **The Golden Rule:** To create any formula, you must always start with an **equal sign (=)**.

Simple Examples of Formulas:

- **To Add:** $=A1+B1$
- **To Subtract:** $=A1-B1$
- **To Calculate Average:** $=AVERAGE(A1:A10)$

Excel performs the calculations for you, making it easier to analyze your database!

Practical Application:

Dear Student: Using **Microsoft Excel**, create a simple database for some of your classmates or friends.

- Include fields like: Name, Phone Number, and Favorite Hobby.
- Try adding a new column after you finish entering the first three names

Exercises on Lesson

Q1: Choose the correct answer:

1. What is the most appropriate definition of a database?

- a. A collection of stories b. A way to store and organize large amounts of information.
c. A program for creating presentations. d. A file for writing letters.

2. In Excel, a row that contains complete information about one person is called a:

- a. Field b. Record c. Column d. Workbook

3. To add a new column in Excel, we use the option:

- a. Delete row b. Insert column c. Sort data d. Filter data

4. Programs like Microsoft Excel are used to create and manage:

- a. Daily notes b. Electronic games c. Databases d. Animations

5. Which symbol must every calculation (formula) in Excel start with?

- a. \$+\$ b. \$-\$ c. \$*\$ d. \$=\$

6. What name do we give to a column header in a database, such as "Student Name"?

- a. Record b. Row c. Field d. Workbook

7. When you set column headers like "ID Number" and "Class Name," you are typing in:

- a. The second row b. The first row c. The last column d. Any empty space

8. One of the common tools that helps you arrange data in Excel is:

- a. Insert image b. Sorting c. Add WordArt d. Draw a circle

9. If you want to calculate the sum of numbers in cells C2, C3, and C4, what is the correct formula?

- a. \$C2+C3+C4\$ b. \$=SUM(C2-C4)\$ c. \$=C2+C3+C4\$ d. \$C2C3C4\$

10. Storing large amounts of information in databases is done on:

- a. The radio b. A computer system c. An old phone d. A camera

Q2: Put (✓) or (✗):

- 1- When you use a formula like =B2-B3, you are performing a subtraction operation. ()
2- The primary goal of analyzing and changing data is to destroy the data. ()
3- When sorting data based on students' ages from youngest to oldest, we use the **Sort** tool. ()
4- The program that uses tables made of columns and rows to create databases is **Word**. ()
5- The first step in creating a simple database in Excel is defining and writing the column names (fields) in the first row. ()

Sixth_Grade - Weekly Assessment and Assignments - Week (11)
Weekly assessment

Test

1-

2-

Class evaluation

Homework

1-

2-

Lesson6: Smart Art



1. What is SmartArt?

Do you have a lot of information or steps that you want to share with your classmates in an easy and understandable way? This is where **SmartArt** comes in.

- **SmartArt:** These are ready-made graphics and shapes in PowerPoint that help you present information visually and in an organized manner, such as sequential steps or clear relationships.
- **Importance:** It makes your presentation more exciting and helps the audience (your classmates and teacher) understand complex information or project steps faster and easier than reading long texts.

Idea: You can use SmartArt to illustrate the stages of a plant's life cycle, the steps to prepare a meal, or the organization of a project team!

2. Steps to Insert and Customize SmartArt

Follow these steps to add a beautiful and appropriate flowchart:

Step 1: Insertion

- Click on the "**Insert**" tab in the top toolbar of PowerPoint.
- Find and click on the "**SmartArt**" icon. A dialog box (window) will appear with many types of diagrams.

Step 2: Choosing the Type

- Choose the type that best represents your information.
 - If your information consists of sequential steps, choose from the "**List**", "**Cycle**", or "**Process**" categories.
- Click on the diagram you prefer, then click "**OK**" to add it to the slide.

Step 3: Adding Text

- Click on the [**Text**] placeholders or the flowchart graphic that appeared on the slide.
- Start typing the information or steps you want to explain inside the designated boxes.

Step 4: Customization and Beauty!

After entering the text, you can make the flowchart look even better:

- Click on the graphic, and two new tabs will appear at the top: "**SmartArt Design**" and "**Format**".
- From "**SmartArt Design**": You can select "**Change Colors**" to make your slides more attractive or choose a new style from the "**SmartArt Styles**" group to change the 3D look or borders of the shapes.

Summary

By using SmartArt, you won't need to write long paragraphs. Instead, you share information visually—this is the secret to successful and effective presentations!

Practical Application:

Dear Student: Create a slide in PowerPoint and insert a **SmartArt** graphic to display information in an organized and attractive way.

- **Try this:** Use a "Process" SmartArt to show the steps of "How to stay safe online."

Exercises on Lesson

Q1: Choose the correct answer:

1. SmartArt flowcharts are primarily used to:

- a. Write long letters.
- b. Simplify and present a series of steps or information.
- c. Play video clips only.
- d. Perform mathematical calculations.

2. To add a SmartArt graphic to a slide, we start by clicking the _____ tab:

- a. Design
- b. Insert
- c. Review
- d. Animations

3. To represent the sequential steps of completing a project, it is preferable to choose from the SmartArt category:

- a. Pyramid
- b. Relationship
- c. Matrix
- d. Process

4. If you want to change the colors of a flowchart, you go to the tab that appears after insertion, which is:

- a. SmartArt Design
- b. Font Formatting
- c. Spell Check
- d. Slide Show

5. PowerPoint provides the ability to insert:

- a. Charts and video clips
- b. Calculators
- c. Woodworking tools
- d. Measuring devices

6. Flowcharts help you understand the presented material better than.....:

- a. Animations
- b. Video clips
- c. Plain text (written text)
- d. Charts

7. When you choose the "Change Colors" option for a chart, the goal is to:

- a. Make the flowchart beautiful and colorful
- b. Increase font size
- c. Delete the chart
- d. Change the written text

8. After inserting a flowchart, you click on it to:

- a. Delete it
- b. Add the text and information you want to display
- c. Print the slide
- d. Close the program

9. Charts are used in PowerPoint to:

- a. Write poetry
- b. Create transition animations
- c. Represent data and numbers visually
- d. Search for information

10. Which tool can you use to represent the "Life Cycle" stages of something?

- a. List
- b. Relation
- c. Cycle
- d. Matrix

Q2: Put (✓) or (✗):

- 1- SmartArt flowcharts are used in PowerPoint to present information visually and in an organized manner. ()
- 2- SmartArt cannot be inserted through the "Insert" menu in PowerPoint. ()
- 3- The "Process" category in SmartArt is used to display sequential steps. ()
- 4- After inserting SmartArt, it is impossible to change its colors or design. ()
- 5- One of the benefits of SmartArt is that it helps the audience understand complex information more easily and quickly. ()

Sixth_Grade - Weekly Assessment and Assignments - Week (10)
Weekly assessment

Test

1-

2-

Class evaluation

Homework

1-

2-

Sixth_Grade - Weekly Assessment and Assignments - Week (13)
Weekly assessment

Test

1-

2-

Class evaluation

Homework

1-

2-

Sixth_Grade - Weekly Assessment and Assignments - Week (14)
Weekly assessment

Test

1-

2-

Class evaluation

Homework

1-

2-